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DEPARTMENT OF TRANSPORTATION
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20591

September 22, 1967

IN REPLY
REFER TO: SB-1-90

Honorable William F. McKee
Administrator
Federal Aviation Administration
Department of Transportation
800 Independence Avenue, S. W.
Washington, D. C. 20590

Dear General McKee:

The Board's investigation of the accident involving a National Airlines Electra, N5006K, at New Orleans, Louisiana, on September 3, 1967, has revealed an instance of cockpit voice recorder inadequacy which is the latest in a series of occurrences that we believe should be brought to your attention.

The problem centers around the cockpit area microphone (CAM) channel on United Control Corporation Model V-557 voice recorders. Since December 15, 1966, our technicians have examined 15 CVR units manufactured by this company. The aircraft on which they were installed were: CL-44, Viscount Convair 580, F-27, Boeing 720, Boeing 727, Nord 262, and Lockheed L-188, which represent a rather extensive cross-section of the air carrier fleet.

Of the foregoing tapes, one was erased by operation of the recorder for more than thirty minutes subsequent to the accident/incident, five had satisfactory CAM channel recording, and the remaining nine evidenced either very weak or almost completely unintelligible CAM channels. In the most recent cited case there appears on this channel an overriding frequency-shifting background noise, not related to any sound present in the cockpit, which obscures the intra-cockpit voices in the principal areas of interest.

The basic problem of low amplitude on the CAM channel (as compared with not only the radio channels on the same tape but also CAM channels on other manufacturers' tapes) has been informally brought to the attention of United Control Corporation management personnel on a number of occasions by our staff. The problem, however, does not appear to have been solved, judging by the results we have obtained not only from direct tape examination but also by spot-checking equipment installed in flight-line aircraft.

General McKee (2)

In view of the foregoing, as well as our mutual interest in assuring the greatest possible degree of intelligibility from this invaluable accident investigation data source, it is recommended that your Administration review the installation approvals granted to the operators listed on the enclosure, in order to ascertain that the CVR equipment as installed, meets the purpose for which it was designed.

Should your staff require further details concerning this subject, personnel of the Investigation Division of our Bureau of Aviation Safety will be pleased to meet with them.

Sincerely yours,

Original signed by ..

Joseph J. O'Connell, Jr.

Joseph J. O'Connell, Jr.
Chairman

Enclosure

OPERATORS UTILIZING UNITED CONTROL CORPORATION

MODEL V-557 COCKPIT VOICE RECORDERS

Airlift International
Allegheny Airlines
Aspen Airways
Capitol Airways
Continental Airlines
Flying Tiger Line
Frontier Airlines
Lake Central Airlines
National Airlines
Northern Consolidated Airlines
Overseas National Airways
Ozark Air Lines
Purdue Aeronautics Corporation
Reeve Aleutian Airways
Seaboard World Airlines
Trans International Airlines
United Air Lines
West Coast Airlines
Wien Air Alaska